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Teaching and Self-teaching in Higher Education

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Abstract

A student willing to develop personally and professionally, subject to the teacher's training and educational actions, then becomes aware of his own potentialities, of the demands and development trends in society; he designs, carries out, evaluates and adjusts those actions ensuring his personal development. He discovers the mechanisms and the path of his own learning, formulates personal goals, acquires and uses self-teaching and self-training methods fit for such goals, evaluates and valorises his own acquisitions. Communicating with his teacher and colleagues, a student gets information, clarifies, deepens, consolidates, systemizes, checks his own ideas and views, improves his strategies for approaching reality, develops his cognitive attitudes. The goals of our study were to: identify the goals of self-training and the basic criteria in their formulation; analyse the progress of these goals throughout the surveys; identify self-education and self-training methods used by the student; identify the underlying reasons of self-teaching and self-training. Regarding the surveyed sample, we found, among others, that: social needs are very important in establishing the reasons of self-teaching; self-training is directed toward all dimensions of personality, professional competences, creativity and communication prevailing; self-assessment becomes increasingly objective.

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1. Introduction

A student, a person interested in his own development (both personally and professionally), self-achievement and self-independence, deciding to continue his studies, involves in a learning process that combines teaching and self-teaching. Progressively, he transforms from a subject of the teaching and training actions carried out by his teacher into a person who, knowing his own potentialities and the evolution requirements and trends of the society,

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plans, performs, evaluates, adjusts self-teaching actions designed to ensure his personal and professional development.

Our goal was to keep track of the process of a student's transformation from a subject of the teaching actions carried out by his teacher into a subject of self-teaching, able to establish his own goals, to select the contents and interiorize them in order to shape his desired skills, to identify and organize the experiences which generate development, to evaluate in an objective manner, to use self-teaching methods which interfere with the research methods.

Ultimately, we were interested in the evolution of the relationship between teaching and self-teaching in the higher education system.

2. Theoretical foundation

Learning, a specific human activity, having special effects on development and adaptation, is based on the experiences encountered by a subject. These experiences (cognitive, affective, practical) may be created, organized and capitalized on by the teacher, the person trained in the psychology of learning, the psychology of development and the teaching science or they may be discovered and capitalized on by the subject himself who has a minimum of metacognitive knowledge.

In the first case, learning is organized, managed, controlled, regulated (discretely) from the outside, while in the second case it is self-organized, -guided, -controlled, -evaluated and -regulated by the person who learns.

The relationship between organization and self-organization, guidance and self-guidance, evaluation and self-evaluation, regulation and self-regulation in the learning process changes as the learner goes along, leading to a transition from teaching to self-teaching.

The processual nature of learning (perceiving in an active and explorative way, decoding, assimilating, integrating, organizing and reorganizing, applying, transforming in mental acquisitions) bears the mark of the person who plays the leading role. However, each stage needs a maximum cognitive and emotional commitment from the one who learns.

The results of the learning process (knowledge, operational structures, intellectual and practical abilities, behaviours and attitudes, competencies) are the most relevant index of its effectiveness.

Learning involves all the components of this activity: motivation, aims (determined by both social and psychological factors), content, physical and mental tools. Motivation is the aspect which triggers and energetically supports learning. The effectiveness of learning depends on the motivational optimum and the triggering motivational structure.

The need for knowledge, self-improvement and personal development, particularly the scientific and creative interests have the greatest determinative value. Creating some research and exploration tools and methods, adopting some techniques for making something new and original, shaping some social and professional skills, developing some scientific, social, entrepreneurial, digital, communication expertise, increasing the quality of their life are among the goals pursued by learners. These goals are initially induced from the outside. Subsequently they are personally undertaken and over time the learning subject himself gets to establish such goals from the very beginning.

The more personalized, the more accurate and especially the more practical the purpose of learning, the better organized learning and the more deeply committed the subject. The contents of learning, selectively taken from culture and (social, professional) practice are theoretical (concepts, theories, models, principles), operational (exploration, problem solving, action strategies and techniques), axiological (systems of values, criteria of selection and assessment).

All the mental mechanisms and especially the cognitive ones (intellectual operations, memory processes, imagination procedures) and the regulating ones (internal language, attention, voluntary effort), whose development influences the content and results of learning, are capitalized on and valued throughout the learning process. A learner uses a lot of methods which differ with the content and stage of learning.

Among these methods, an important role is played by reading (whether explanatory, parallel, problematizing or critical), investigation (whether direct or indirect), experiment (whether real or mental, theoretical), reflection, conversation and discussion (with special informative and formative valences, whereas, communicating with an

interlocutor, a person finds out, clarifies, deepens, consolidates, summarizes, verifies his own ideas, opinions, improves his strategies for approaching reality, develops his cognitive attitudes).

A number of mental mechanisms are involved throughout the learning process, ensuring its conduct and effectiveness. Among these, the most important are the operational structures, attention, voluntary effort, internal language, self-image, the feeling of success (based on cognitive task overcoming).

By the age of 13-14, a learner rather encounters (cognitively, emotionally) experiences organized by the others (parent, teacher).

Staring from this age, he has a maximally developed self-consciousness, a clear and personal ideal in life, individualized life models, abilities of self-knowledge, self-evaluation; he knows how and what to learn and wants to learn.

At the age of studentship, having a personal development plan, he takes advantage, in a personal manner and for his own benefit, both his and other people's experiences.

Learning (both as a process and a product) is influenced by a number of factors which act not only from the inside (biological and psychological factors) but also from the outside of a learner. It is very important that these factors are known and mastered, valorised and mitigated.

Self-knowledge, objective self-evaluation and also the organization of the spatial-temporal context are indispensable in an act of teaching oneself.

3. Research methodology

Our research (as an applicative, empirical one) aimed to define the relationship between teaching and self-teaching in the higher education system, including the following aspects: the reasons and purposes of learning, the learning methods used and the involvement of self-evaluation in learning.

We set the following goals:

- to identify the main categories of reasons which support students' learning (we were deeply interested in the force of these reasons and the motivational structures which generated them);
- to identify the goals of self-teaching, established by the students who were our research subjects (first of all, we wanted to see the extent to which the students were following certain previously established goals and especially if those goals were subordinated to personal and professional development, if they were clear and concrete);
- to analyse the evolution of the reasons and goals during studies (we started from the assumption that quality teaching determines quality self-teaching);
- to identify the methods of self-teaching and self-training which the students were mainly using;
- to determine the extent to which self-knowledge of self-characteristics and self-evaluation of the process and products of learning interfere in the organization and conduct of self-teaching actions.

We believe that our investigative venture will deepen and explain how students manage to fully engage in learning actions which are organized, guided and optimized by themselves and, at the same time, we would like to draw the attention of our colleagues in higher education to the manner in which we help students to become, from a subject of our actions, into a subject of self-teaching and self-training.

The research was conducted during the academic years 2012-2013 and 2013-2014, on a sample (resulted from a simple random sampling) of 90 students from three faculties of Bucharest University (Faculty of Letters, Faculty of Geography, Faculty of Psychology and Educational Sciences).

In setting our research period, we were mindful of our core goal: to study the evolution of the relationship between teaching and self-teaching, as well as the components of the teaching act in the same students.

The sample included 45 male subjects and 45 female subjects. Their age varied largely: 90% were 18-20, 10% were between 30 and 40 (some of the subjects were attending higher education for the first time, while others were attending a second faculty).

In order to get information about the issues involved, we used the following methods:

- the questionnaire-based survey (namely the branch questionnaire, in order to detect the nuances of the answers);
- the interview-based survey (wishing to identify some issues we did not initially take into consideration, we chose the semi-structured, semi-guided interview);
- the "Who am I?" test, developed by M. Zlate (2008), was used to find out the extent to which students are aware of the essential defining features of their own personality and mainly the cognitive features which influence both the process and the results of their learning;
- the personal development plan, which was required from the students at the beginning of our survey; subsequently, they could improve or restructure their plans;
- the review of the school results obtained in continuous assessment (mainly concrete tests conducted during the seminars/in laboratories) and in summative assessment (results obtained in examinations); and
- the selective observation.

We must admit the subjective character of our interpretation. Those surveyed being our own students, empathy and comprehension interfered to a large extent.

4. Results

Corroborating the information provided in the questionnaire and the interview regarding the reasons of learning we found the following:

- the students in the first year of study have extrinsic reasons for learning and knowledge, generally negative reasons (fear of getting bad marks, failing an exam, losing their scholarship or place in the hostel, having a strained holidays), as well as affective reasons (fear of losing the respect of their parents or colleagues, or the reputation they have among their acquaintances); this is specific to very young students, but also to those aged between 30 and 40 who attend a faculty for the first time (85%);
- the students attending a second faculty, having a higher degree of maturity (especially psychological) are energetically supported by cognitive reasons (the need to know, to extend their field of explorations, to understand the diversity of the world), by the needs for valorisation (self-esteem, desire to bring their contribution to enlarged knowledge), as well as the needs for self-achievement;
- among the students who finished high school recently, we also identified some who were intrinsically motivated to learn;
- in the second year of study, we find that the reasons of learning become uniform: there are less extrinsic reasons and the cognitive ones get priority; the share of creative and self-achievement reasons is increased; the distribution of these reasons transcends the distribution of students by age; we believe this can be explained by the quality of the teaching act, which generated intellectual emotion and scientific interests;
- at the same time, we find that the older students are all over-motivated: those attending a second faculty monitor the intensity of their motivation in a proper way, while the others have less control over their emotions, not only during examinations, but also when asked for their personal opinions; the very young students are either under-motivated (which generates their passive attendance at activities in the laboratory or at seminars and their partial learning), or over-motivated, which makes their participation in the teaching act more active;
- in the third academic year, we can also see a correspondence between the intensity of students' motivation and the difficulty of the task, which proves not only their objective assessment of difficulties, but also their ability to obtain optimal motivation.

The questionnaire, the interview and the personal development plan also provided us information about the evolution of the aims of learning:

- the students in the first year, who finished high school recently, set their goals only in the assessment period; also in this case, their goals are overall goals, generally for passing exams;

- those aged 30-40, attending a first faculty, establish goals throughout the semester; their goals are precise, generally of a practical, but also an affective nature; however, these goals are subjectively determined;
- the students attending a second faculty set precise goals of cognitive and practical nature, which are objectively determined;
- however, we find that, over time, all the students use to establish precise, objectively determined goals in order to guide their investigative ventures; this proves their increased interest in learning and personal development; most often, they use cooperation to achieve individual goals.

The learning methods used by students change significantly. If in the first year most students think that reading the courses and going through the relevant bibliography is sufficient for their learning, in the second year they adopt a diversity of methods.

Personal reflection accompanies the various forms of reading. The two methods are mainly used during the exam session. Throughout the semester, students involve themselves in continuous and participative learning.

Observation, research of phenomena, modelling, case analysis, simulation games, exercise combine with conversation, discussion, thus enabling individual enhancement of personal and social experience and, in particular, the constructive exchange of information, impressions, opinions.

It is very interesting that among these methods used by the students we can find creative writing and reading and especially some specific research methods they got accustomed with during the seminars and in the laboratory.

The method of acquiring knowledge called ″Who am I?″, based on introspection, self-observation and self-analysis, provided us relevant information about the capacity of self-knowledge of the surveyed subjects.

While, at the beginning, self-knowledge proved to be scarce and irrelevant, at the end of our survey we found it really improved.

This change can be explained by students' permanent involvement in acts of acquiring knowledge about the world, by their comparing with the other fellow-participants in the learning act and particularly by the contribution of the psycho-pedagogical disciplines.

Therefore, self-knowledge is not only a prerequisite, a condition, but also a result of self-teaching and self-training, while subsequently it becomes their premise and means.

4. Conclusions

Interpreting the data provided by our survey, we conclude the following:

- the quality teaching offered by a teacher contributes not only to students' knowledge development, but also to their instrumentalization as subjects of knowledge (subjects who continue the knowledge process independently and get abilities for that);
- teaching correlates with and is supplemented by self-teaching, both of them contributing to the development of students; the reasons of self-teaching become intrinsic to the knowledge activity;
- the acts of teaching are more and more precisely oriented and controlled by clear, realistic and individualized purposes;
- as they involve in real acts of research, students enrich their self-teaching methodology, adjusting it to meet individual and social requirements;
- their knowledge of own possibilities and limits help students to properly engage in self-teaching.

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